

Serial No. 10/555,865
Reply
Attorney Docket No. 105090.61194US

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for the ~~prevention and/or~~ treatment of a disease characterized by the accumulation of amyloid deposits in the brain of a patient comprising administering to a patient in need thereof an effective amount of a peptide conjugated to a protein immunogen for the production of antibodies that specifically recognize any of the predominant variants of a beta amyloid A β 40 or A β 42 peptide.
2. (Previously presented) The method according to claim 1, wherein the disease is Alzheimer's disease.
3. (Previously presented) The method according to claim 1 wherein the protein is keyhole limpet protein (KLH).
4. (Currently Amended) The method according to claim 1, wherein the peptide is selected from a group consisting of
 - a peptide of SEQ ID No 1, a peptide of SEQ ID No 2, a peptide of SEQ ID No 3, a peptide of SEQ ID No 4;
 - ~~peptides resulting from shortening by elimination of amino acids of the N-terminal and/or C-terminal ends of SEQ ID No 1, SEQ ID No 2, SEQ ID No 3 or SEQ ID No 4;~~
 - and a peptide resulting from lengthening by addition of amino acid residue appropriate for conjugating the protein to any of the peptides of SEQ ID No 1, SEQ ID No 2, SEQ ID No 3 or SEQ ID No 4.

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5. (Withdrawn) The method according to claim 4, wherein the peptide is selected from the group consisting of:

- the peptide of SEQ ID No 1;
- the peptides resulting from shortening by elimination of the residues of amino acids of the N-terminal and/or C-terminal ends of SEQ ID No 1;
- and the peptides resulting from lengthening by addition of the amino acid residues necessary for protein conjugation.

6. (Currently Amended) The method according to claim 4, wherein the peptide is selected from the group consisting of:

- the peptide of SEQ ID No 2;
- ~~the peptides resulting from shortening by elimination of the residues of the N-terminal and/or C-terminal ends of SEQ ID No 2;~~
- and the peptides resulting from lengthening by addition of the amino acid residues necessary for protein conjugation.

7. (Currently Amended) The method according to claim 4, wherein the peptide is selected from the group consisting of:

- the peptide of SEQ ID No 3;
- ~~the peptides resulting from shortening by elimination of the residues of the N-terminal and/or C-terminal ends of SEQ ID No 3;~~
- and the peptides resulting from lengthening by addition of the amino acid residues necessary for protein conjugation.

8. (Withdrawn) The method according to claim 4, wherein the peptide is selected from the group made up of:

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- the peptide of SEQ ID No 4;
 - the peptides resulting from shortening by elimination of the residues of amino acids of the N-terminal and/or C-terminal ends of SEQ ID No 4;
 - and the peptides resulting from lengthening by addition of the amino acid residues necessary for protein conjugation.
9. (Withdrawn) A method for the prevention and/or treatment of a disease characterized by the accumulation of amyloid deposits in the brain of a patient comprising administering to a subject in need thereof an effective amount of an antibody or an active fragment or derivative of an antibody that specifically recognizes any of the predominant variants of the beta amyloid peptide, A β 40 and A β 42 .
10. (Withdrawn) The method according to claim 9, wherein the disease is Alzheimer's disease.
11. (Withdrawn) The method according to claim 9, wherein the antibody or the active fragment or derivative of the antibody that specifically recognizes any of the predominant variants of the peptide A β 40 and A β 42 is obtained from an animal immunized with a peptide selected from a group consisting of

SEQ ID No 1, SEQ ID No 2, SEQ ID No 3, SEQ ID No 4,

SEQ ID No 1, SEQ ID No 2, SEQ ID No 3, SEQ ID No 4 shortened by elimination of the amino acid residues from the N-terminal and/or C-terminal ends, and

SEQ ID No 1, SEQ ID No 2, SEQ ID No 3, SEQ ID No 4 lengthened by addition of the appropriate amino acid residues for protein conjugation.

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12. (Withdrawn) The method according to claim 9, wherein said antibody or active fragment or antibody derivative is obtained by immunization of mammals or birds with a peptide selected from among the group consisting of:

- the peptide of SEQ ID No 1;
- the peptides with a sequence resulting from eliminating the residues of N-terminal and/or C-terminal amino acid of SEQ ID No 1;
- and the peptides resulting from adding to any of the preceding sequences, the amino acid residues necessary for protein conjugation.

13. (Withdrawn) The method according to claim 9, wherein said antibody or active fragment or antibody derivative is obtained by immunization of mammals or birds with a peptide selected from among the group comprised of:

- the peptide of SEQ ID No 2;
- the peptides with a sequence resulting from eliminating the residues of N-terminal and/or C-terminal amino acid of SEQ ID No 2;
- and the peptides resulting from adding any of the preceding sequences, the amino acid residues necessary for protein conjugation.

14. (Withdrawn) The method according to claim 9, wherein said antibody or active fragment or antibody derivative is obtained by immunization of mammals or birds with a peptide selected from among the group comprised of:

- the peptide of SEQ ID No 3;
- the peptides with a sequence resulting from eliminating the residues of N-terminal and/or C-terminal amino acid of SEQ ID No 3;
- and the peptides resulting from adding to any of the preceding sequences, the amino acid residues necessary for protein conjugation.

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15. (Withdrawn) The method according to claim 9, wherein said antibody or active fragment or antibody derivative is obtained by immunization of mammals or birds with a peptide selected from among the group consisting of:

- the peptide of SEQ ID No 4;
- the peptides with a sequence resulting from eliminating residues of N-terminal and/or C-terminal amino acid of SEQ ID No 4;
- and the peptides resulting from adding to any of the preceding sequences, the amino acid residues necessary for protein conjugation.

16. (Withdrawn) A vaccine for the prevention or treatment of a disease characterized by accumulation of amyloid deposits in the brain of a patient, comprising the peptide of claim 1.

17. (Withdrawn) The vaccine of claim 17, wherein the peptide is selected from the group consisting of

(a) a peptide consisting of the sequence set forth in SEQ ID No 1, a peptide consisting of the sequence set forth in SEQ ID No 2, a peptide consisting of the sequence set forth in of SEQ ID No 3, and a peptide consisting of the sequence set forth in SEQ ID No 4;

(b) a peptides resulting from shortening by elimination of amino acids from the N-terminal and/or C-terminal ends of SEQ ID No 1, SEQ ID No 2, SEQ ID No 3 and SEQ ID No 4; and

(c) and a peptide resulting from lengthening by addition of amino acid resides appropriate for conjugating the protein to any of the peptides of SEQ ID No 1, SEQ ID No 2, SEQ ID No 3 and SEQ ID No 4.

18. (Withdrawn) A vaccine for the prevention or treatment of a disease characterized by accumulation of amyloid deposits in the brain of a patient,

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comprising the antibody or the active fragment or derivative of the antibody of claim 9.

19. (Withdrawn) The vaccine of claim 18, wherein the antibody or the active fragment or derivative of the antibody is obtained from an animal immunized with a peptide selected from a group consisting of

(a) SEQ ID No 1, SEQ ID No 2, SEQ ID No 3, SEQ ID No 4,

(b) SEQ ID No 1, SEQ ID No 2, SEQ ID No 3, and SEQ ID No 4 shortened by elimination of the amino acid residues from the N-terminal and/or C-terminal ends, and

(c) SEQ ID No 1, SEQ ID No 2, SEQ ID No 3, and SEQ ID No 4 lengthened by addition of the appropriate amino acid residues for protein conjugation.